IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

POLAROID CORPORATION, Plaintiff and Counterclaim Defendant, v. HEWLETT-PACKARD COMPANY, Defendant and Counterclaim Plaintiff.	C.A. No. 06-738-SLR **REDACTED**

**DEFENDANT HEWLETT-PACKARD COMPANY'S OPPOSITION TO PLAINTIFF
POLAROID CORPORATION'S MOTION FOR SUMMARY JUDGMENT THAT
CLAIMS 1-3 OF U.S. PATENT NO. 4,829,381 ARE NOT OBVIOUS**

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I.   NATURE AND STAGE OF THE PROCEEDING

This is a patent infringement case. Plaintiff, Polaroid Corporation ("Polaroid"), alleges

that defendant, Hewlett-Packard Company ("HP"), infringes Claims 1-3 and 7-9 of U.S. Patent

No. 4,829,381 (the "'381 patent"). Fact and expert discovery have been conducted. Claim

construction has been briefed.

Hewlett-Packard has retained an expert in digital image processing, Dr. Rangaraj

Rangayyan, to evaluate the validity of the '381 patent. Dr. Rangayyan is a professor at the

University of Calgary specializing in digital image processing. Dr. Rangayyan has submitted

two reports totaling over one-hundred and sixty pages in which he sets forth his opinion that,

under the claim constructions proposed by both parties, the asserted claims of the '381 patent are

invalid. Dr. Rangayyan's reports contain detailed mappings of each element of the asserted

claims to multiple prior art references. Based on his analysis, he concludes that the asserted

claims of the '381 patent are both anticipated and obvious in light of various prior art references.

Polaroid has submitted an expert report by Dr. Peggy Agouris in which she gives her

opinions with respect to alleged infringement of the asserted claims of the '381 patent by HP. In

that report, Dr. Agouris makes various assertions regarding the scope of claims 1-3 of the '381

patent. Dr. Agouris submitted a second report in which she, over the course of sixty-eight pages,

responds to and purports to rebut Dr. Rangayyan's opinions regarding the validity of the asserted

claims of the '381 patent. Both Dr. Agouris and Dr. Rangayyan have been deposed.

On this record, Polaroid has filed a Motion for Summary Judgment That Claims 1-3 of

U.S. Patent No. 4,829,381 Are Not Obvious (Polaroid's "Motion" or the "Motion for Summary

Judgment of Non-Obviousness"). This memorandum is filed in opposition to that Motion.

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II.   SUMMARY OF ARGUMENT

Polaroid's Motion for Summary Judgment of Non-Obviousness with respect to Claims 1-3 should be denied because: (1) it does not even address several prior art references which HP allege make claims 1-3 obvious to one of ordinary skill in the art; and (2) Polaroid's Motion ignores material issues of fact with respect to the determination as to whether certain references should be considered prior art, the scope of the disclosure contained in several prior art references, and the motivation of one of ordinary skill to combine those references. The conflicting expert testimony on these questions create quintessential issues of fact that must be resolved at trial. *See Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 255 (1986); *Omegaflex, Inc. v. Parker-Hannifin Corp.*, 243 Fed. Appx. 592, 596-97 (Fed. Cir. 2007) (unpublished opinion). Therefore, summary judgment is inappropriate. *See Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1363-64 (Fed. Cir. 2005); *Med. Instrum. and Diagnostics Corp. v. Elekta AB*, 344 F.3d 1205, 1220-22 (Fed. Cir. 2003).

III.   STATEMENT OF FACTS

A.   Technology Background

Rather than restate it in its entirety, HP hereby respectfully directs the Court to the description of the technology recited in Section III(A) of HP's Motion for Summary Judgment of Non-Infringement or in the Alternative Invalidity.

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B.   State of the Art in Digital Image Processing Prior to the '381 patent[1]

1.   Techniques for transforming digital images have been known for decades. For example, the Jet Propulsion Laboratory ("JPL") was assigned the task of improving the quality of images transmitted by Apollo 11, which landed on the Moon in 1969. JPL conducted research and developed several transformation and contrast enhancement techniques to improve the quality of digital images. Expert Report of Dr. Rangaraj Rangayyan ("Rangayyan Report"), filed herewith as Exhibit A to the Declaration of Dr. Rangaraj Rangayyan ("Rangayyan Decl."), ¶ 34.

2.   During the 1970s and 1980s there was wide recognition of the desirability of improving digital output images so as to increase the contrast within areas of an image and thus make details in the image more visible to human observers. A variety of techniques were developed that addressed this problem. In many cases, these techniques utilized combinations of the same or similar components. *See id.* ¶ 35.

3.   Two texts well-known to those involved in the image processing art in the late 1970's and during the 1980's were "Digital Image Processing," by Gonzalez R.C. and Wintz P., (Addison-Wesley, Reading, MA, 1977) ("Gonzalez") and "Computer Image Processing and Recognition," by Hall E.L., (Academic, New York, NY, 1979) ("Hall"). *See id.* ¶ 36.

The Gonzalez and Hall Textbooks

4.   The Gonzalez textbook was published in 1977. It describes many well-known image enhancement techniques developed prior to 1977. The Hall textbook was published in

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[1] This section focuses only on those references addressed in Polaroid's Motion for Summary Judgment of Non-Obviousness. As discussed below in Section IV(B)(1), HP alleges that other references, and combinations of references, render claims 1-3 of the '381 patent obvious. This section does not describe those references -- most notable of which is the Okada Patent -- or their contribution to the state of the art of contrast enhancement through image processing. For a discussion of the Okada patent, *see* Section III(C) of HP's Motion for Summary Judgment of Non-Infringement or in the Alternative Invalidity.

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1979. It explains many well-known image enhancement techniques developed prior to 1979. Many of the techniques published in the Gonzalez textbook and the Hall textbook were taught to university students throughout the late 1970s and the 1980s. *See id.* ¶ 37.

5.   Appendix A of the Gonzalez textbook includes a software algorithm that receives a digital image and prints it on a printer (the "Gonzalez Algorithm"). The Gonzalez Algorithm accepted images having a different dynamic range from that of the printer. In such a situation, the input values of two adjacent pixels may be similar even though each pixel represented a part of the real-world scene that was actually different. The Gonzalez Algorithm taught a technique for modifying the values of the pixels that made up the input image so as to enhance the contrast between individual pixels and thus to improve the image generated by the printer. *See id.* ¶ 38.

6.   Hall included extensive detailed discussion of multiple methods for performing contrast enhancement. *See id.* ¶ 42. Including among the discoveries in Hall are:

(a)   systems and methods for transforming pixel values that collectively define an image, wherein the pixels have values within a range of possible values determined by the number of bits available to represent each pixel value. *See id.* ¶¶ 39-40.

(b)   teachings that the contrast between a pixel and its surrounding area could be calculated by comparing the luminance value of the subject pixel to the average luminance value of the pixels in its immediate surrounding area. *See id.* ¶ 41.

(c)   the use of a neighborhood of pixels (e.g., a pixel and its eight immediate neighbors or, alternatively, a pixel's eight immediate neighbors) to process digital images. *See id.* ¶ 45.

(d)   the use of a transformation function having multiple parts, each transforming an input pixel value by a different amount and that the amount by which an

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input pixel value was modified was selected as a function of the value of the pixel being processed. *See id.* ¶¶ 46-52.

The Lee Reference

7.   Another example of well-known techniques for contrast enhancement from this same, very early, time period is the article titled, "Digital Image Enhancement and Noise Filtering by Use of Local Statistics," by Jong-Sen Lee, (IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. PAMI-2, No. 2, pp. 162-168, March 1980) ("Lee" or the "Lee Reference"). *See id.* ¶ 54.

8.   Lee described systems and methods for successively transforming a series of input pixel values that collectively define an image. *See* Lee filed herewith as Exhibit G to the Declaration of Raymond N. Scott, Jr., ("Scott Decl."), col. 1, Abstract; *see also* Rangayyan Report (Rangayyan Decl. Ex. A), ¶ 56. Included among the disclosures in Lee were:

(a)   contrast enhancement methods utilizing pixel values having a value within a dynamic range of values. *See* Lee, p. 166 (last paragraph). For example, Lee described grayscale images in which pixels have values between 0 and 255. *See id.*; *see also* Rangayyan Report ¶ 57.

(b)   methods for enhancing image contrast in a selective manner utilizing, for example, the average luminance of a selected group of pixels around the pixel being processed (the "mean" luminance value) and determining the amount by which the luminance of an individual pixel varied from the average of the luminance of the pixels in its vicinity. *See* Lee, p. 165, col. 2, lines 48-55; *see also* Rangayyan Report ¶¶ 58-62.

The Narendra Reference

9.   Another piece of relevant prior art is the 1981 article "Real-Time Adaptive Contrast Enhancement," by Patrenahalli M. Narendra and Robert C. Fitch (IEEE Transaction on

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Pattern Analysis and Machine Intelligence, VOL. PAMI-3, No. 6, pp. 655-661, November 1981) ("Narendra" or the "Narendra Reference").

10.   Narendra described systems and methods for improving an image by transforming pixel values received as a series of pixel values that collectively define an image. *See* Narendra, filed herewith as Exhibit H to Scott Decl., Abstract, Introduction, first paragraph, and Fig. 8; *see also* Rangayyan Report (Rangayyan Decl. Ex. A) ¶ 65. Included among the disclosures in Narendra were:

(a)   a locally adaptive contrast enhancement scheme which utilized various computations of local area statistics to determine how a pixel is transformed. *See* Narendra, p. 656, col. 1, paragraph 3. Specifically, Narendra explained that the image luminance" at each point is transformed based on local area statistics -- the local mean M_{ij} and the local standard deviation σ_{ij}." *See* Narendra, p. 656, col. 2, paragraph 2; *see also* Rangayyan Report ¶¶ 65-69.

(b)   the use of local area statistics on a pixel-by-pixel basis to selectively enhance contrast in a digital image, and the implementation of such a technique in circuitry. *See* Narendra, p. 658 (figures 4-6); *see also* Rangayyan Report ¶¶ 65-72.

The Wang Reference

11.   In 1983, the survey article titled, "Digital Image Enhancement: A Survey," by David C. Wang, Anthony H. Vagnucci and C.C. Li, (Computer Vision, Graphics, and Image Processing, Vol. 24, pp. 363-381 (1983)) ("Wang" or the "Wang Reference") was published.

12.   Wang described several image enhancement techniques, including various methods (utilizing a variety of mathematical functions) for contrast enhancement. Included among the disclosures in Wang were:

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(a)   enhancing individual pixel values received as a series of pixel values that collectively define an image, *see* Wang filed herewith as Exhibit I to Scott Decl., p. 363, Introduction, first paragraph, Fig. 1-1;

(b)   utilizing a computed average of the values of a neighborhood of a pixels being processed in contrast enhancement methods, *see* Wang, p. 367, Eqs. (4-1) and (4-2);

(c)   use of linear (equations without an exponential or logarithmic component) and nonlinear (equations with exponential or Logarithmic components -- including those that utilize the roots of values -- e.g. square-root or cube-roots) transformation functions for image enhancement, *see* Wang, p. 372, Figure 5-1;

(d)   the selection of a different transformation for each pixel depending upon its value, *see* Wang, p. 373.

See Rangayyan Report (Rangayyan Decl. Ex. A), ¶¶ 75-80.

13.   Wang also demonstrates that different techniques for image processing use similar constituent parts to achieve contrast enhancement and that those parts are often used, or are attempted to be used, interchangeably by practitioners of the art. *See id.* ¶ 81.

The Rangayyan Reference

14.   In 1984, Dr. Rangayyan, HP's expert, co-authored "Feature Enhancement of Film Mammograms using Fixed and Adaptive Neighborhoods," by Gordon R and Rangayyan RM, Applied Optics, 1984, 23(4): 560-564 ("Rangayyan" or the "Rangayyan Reference"). Included among the disclosures in Rangayyan were:

(a)   a method of adaptive contrast enhancement by which a different transformation function is selected for each input pixel, *see generally* Rangayyan, filed herewith as Exhibit J to Scott Decl.

(b)   systems and methods for enhancing pixel values received as a series of pixel values that collectively define an image, *see* Rangayyan, Section A;

(c)   contrast enhancement techniques utilizing pixel values having a value within a dynamic range of values, *see* Rangayyan, Section B (stating "the display range of 0 to 255.");

(d)   a method of contrast enhancement utilizing a nonlinear mathematical function. It further explains that this function may be varied or selected as desired. *See* Rangayyan, p. 561, col. 1, ll. 36-40 (stating "[t]he contrast value is now enhanced according to a specified function to a new value C.' A simple enhancement function is C' = $\sqrt{C}$..." i.e. a non-linear function because it utilizes a square-root);

(e)   the selection of a transfer function for each pixel being processed as a function of the average value of the selected group of pixels and the value of the pixel being processed, *see* Rangayyan, Section B, 2nd paragraph;

(f)   how the means and methods described above may be used to achieve adaptive contrast enhancement (contrast enhancement that is not uniform across an image but instead depends on local characteristics -- such as the brightness of surrounding pixels) so as to improve the visibility of objects in images in dark areas as well as in light areas of an image.

See Rangayyan Report (Rangayyan Decl. Ex. A), ¶¶ 83-89.

The Richard Patent

15.   United States Patent No. 4,654,710 to Christian J. Richard ("Richard" or the "Richard patent") was issued as a patent on March 31, 1987, based on an application filed on January 3, 1986.

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16.   Richard described a contrast enhancement system and method which improves the quality of images. *See* Richard, Field of the Invention. Included among the disclosures contained in Richard were:

(a)   systems and methods for continuously enhancing pixel values received as a successive series of pixel values that collectively define an image, *see* Richard filed herewith as Exhibit D to Scott Decl., col. 2, ll. 26-34, Figure 1;

(b)   contrast enhancement methods utilizing pixel values having a value within a dynamic range of values, *see* Richard, col. 3, ll. 33-47, col. 5, l. 66 – col. 6, l. 19, Figure 1;

(c)   contrast enhancement methods including the averaging a selected group of pixels to provide an average pixel value, such as a local mean, *see* Richard, col. 1, lines 62-63;

(d)   contrast enhancement algorithms that utilize a ratio that has a numerator that is the average value of pixels in a local region of the pixel being processed and a denominator that is a value in the range of possible values of the dynamic range (the global mean);

(e)   circuitry and devices that use a ratio that has a numerator that is the average value of pixels in a local region of the pixel being processed and a denominator that is a value in the range of possible values of the dynamic range to perform contrast enhancement, *see* Richard, Figure 1, output 13;

(f)   a circuit for local area contrast enhancement that calculates local mean values for groups of pixels and the use of a user-controllable constant for controlling the amount of contrast enhancement applied to an image.

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See Rangayyan Report (Rangayyan Decl. Ex. A), ¶¶ 101-109.

The Chen Patent

17.   United States Patent No. 4,789,933 to Chen et al. ("Chen" or the "Chen patent") was issued on December 6, 1988, based on an application filed on February 27, 1987.

18.   Chen describes systems and methods for continuously enhancing pixel values received as a successive series of pixel values that collectively define an image. *See* Chen filed herewith as Exhibit E to Scott Decl., col. 1, l. 62 – col. 2 l. 3, col. 4, ll. 45-65 and Fig. 1. Included within the disclosures in Chen are:

(a)   a contrast enhancement method utilizing a value within a dynamic range of values, *see* Chen, col. 1, l. 62 – col. 2, l. 3;

(b)   a contrast enhancement method utilizing a computation of an average of the values of pixels surrounding the pixel to be processed, *see* Chen, Abstract;

(c)   a contrast enhancement method including the selection of a transfer function uniquely defined for each pixel being processed, which also utilized the mean of pixel values of neighboring pixels, *see id.*;

(d)   computing a contrast-related measurement using a ratio that has an intermediate calculated value over a value that lies within the possible values of the dynamic range, *see id.*, col. 6, ll. 18-60 and col. 10, ll. 20-29; *see also id.* Figure 2.

See Rangayyan Report (Rangayyan Decl. Ex. A), ¶¶ 111-119.

19.   In digital image processing courses taught to university students from 1983 to 1987, a typical student would learn and understand digital image processing techniques such as those disclosed in the references described above. Therefore, prior to the filing of the application which matured into the '381 patent, the well known aspects of the art of digital image processing included: (i) the use of various mathematical techniques to determine an average of a selected

group of pixels, including the pixel being processed; (ii) choosing a gamma transfer function based on the average value of a neighborhood of pixels adjacent to the pixel being processed; (iii) use of a ratio in a contrast enhancement transformation function; (iv) the use of mathematical transfer functions that utilized ratios of a local average over a value within the available dynamic range; and (v) the transformation of the pixel being processed based on the gamma value produced by the gamma transfer function. *See* Rangayyan Report ¶ 121.

20.   In 1988 and 1989, in the context of the '381 patent, a person of ordinary skill in the art would typically have a Bachelor's degree in electrical engineering and two years of coursework or practical experience directed to digital signal or image processing. *See* Rangayyan Report ¶ 122.

IV.   ARGUMENT

A.   The Legal Standard for Summary Judgment

Summary judgment is appropriate when the evidence shows that there is no genuine issue as to any material fact. Fed. R. Civ. P. 56(c). As the moving party, Polaroid bears the burden of establishing that no genuine issue of material fact exists. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 586 n.10 (1986). All facts and inferences must be construed in the light most favorable to the party opposing summary judgment. *See Anderson*, 477 U.S. at 249. To defeat a motion for summary judgment, the party opposing summary judgment need only show the existence of a genuine dispute of material fact. *See Freedman Seating Co.*, 420 F.3d at 1363.

A genuine dispute of material fact exists where there is conflicting expert testimony, because the jury must weigh the credibility of the parties' experts. *See* Anderson, 477 U.S. at 255. Summary judgment of non-obviousness is, therefore, not appropriate where there is conflicting expert evidence requiring credibility determinations. *See, e.g., Amesbury Group, Inc.*

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v. Caldwell Mfg. Co., 2006 WL 3196747, at *6 (D. Mass. 2006); *IXYS v. Advanced Power Tech., Inc.*, 321 F. Supp.2d 1133, 1148 (N.D. Cal. 2004). Thus, on a motion for summary judgment of non-obviousness, the non-movant's expert evidence "cannot simply be disregarded" and will instead defeat summary judgment whenever it raises a genuine issue of material fact. *Omegaflex, Inc.*, 243 Fed. Appx. at 596; *see also Med. Instrum. and Diagnostics Corp.*, 344 F.3d at 1220-22.

To obtain summary judgment of non-obviousness the movant must prove no material issue of fact exists and that it is entitled to judgment as a matter of law with respect to all of the allegedly invalidating prior art. *See Miller Prods. Co. v. Veltek Assocs., Inc.*, 2004 WL 253473, at *5 (D. Del. 2004) (finding that the defendant raised a genuine issue of material fact by pointing to the fact that the patentee failed to address evidence advanced by the defendant in Plaintiff's motion for summary judgment); *see also Eaton Corp. v. ZF Meritor LLC*, 504 F. Supp.2d 217, 224 (E.D. Mich. 2007) (granting defendant's motion for summary judgment of obviousness when the patentee's expert failed to address certain prior art references and allegations advanced by the defendant).

B.   Summary Judgment of Non-Obviousness Should Not Be Granted

Polaroid's Motion is limited to claims 1-3 of the '381 patent as construed by Polaroid. *See generally* Polaroid's Motion, p. 4 ("Claim 1 under Polaroid's proposed claim construction") and p. 6 ("Claims 2 and 3 under Polaroid's proposed claim construction"). Polaroid does not move for summary judgment of non-obviousness under HP's proposed claim constructions and does not seek a judgment of non-obviousness of asserted claims 7-9.[2] *See id.*

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[2] Polaroid does not seek summary judgment with respect to any of HP's allegations that the asserted claims are anticipated pursuant to 35 U.S.C. § 102.

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The extent to which a reference or combination of references makes a claim obvious to a person of ordinary skill in the art is dependant, in part, on the scope of that claim. *See Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1351 (Fed. Cir. 2001); *Smiths Indus. Med. Sys., Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1353 (Fed. Cir. 1999). Therefore, any analysis of obviousness must begin with proper construction of the claims. *See id.* To the extent that the Court rejects Polaroid's claim constructions, Polaroid's Motion for Summary Judgment of Non-Obviousness will be inapposite, and should be denied.

1.   **Polaroid's Motion Should Be Denied Because It Fails to Address Evidence of Obviousness With Respect To Claims 1-3.**

Polaroid's Motion for Summary Judgment of Non-Obviousness does not address substantial evidence regarding the invalidity of Claims 1-3 cited by HP and addressed by HP's expert. For example, Polaroid's Motion does not address HP's allegations of obviousness based on the Okada patent. As explained in detail in HP's Motion for Summary Judgment of Non-Infringement, or in the Alternative, Patent Invalidity, all of the asserted claims of the '381 patent, including Claims 1-3, are invalid in light of the Okada patent in view of Polaroid's contentions regarding the scope of those claims. Polaroid's failure to address the issues and arguments regarding the Okada reference are sufficient grounds for denial of its Motion for Summary Judgment. *See Omegaflex, Inc.*, 243 Fed. Appx. at 596-97; *Miller Prods.*, 2004 WL 253473, at *5.[3]

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[3] It is no answer for Polaroid to rely on its Motion to Strike the Supplemental Report of HP's invalidity expert -- which HP opposes. HP's Motion for Summary Judgment does not rely solely on Dr. Rangayyan's Supplemental Report. Rather, the prosecution history of the '381 patent, Polaroid's own expert's statements regarding the alleged disclosure of the Okada reference, and Polaroid's assertions regarding the scope of the claims at issue, are sufficient for HP to establish that claims 1-3 are invalid as obvious in view of Okada. Furthermore, Dr. Rangayyan's initial report details his opinions regarding the obviousness of the asserted claims of the '381 patent in light of the Okada reference. *See, e.g.,* Initial Rangayyan Report, ¶¶ 131-132.

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Polaroid's Motion also fails to address any of the evidence, including Dr. Rangayyan's expert opinions, with respect to the obviousness of claims 1-3 in light of Okada in combination with the other identified references. *See* Rangayyan Supplemental Report at ¶¶ 108-139 (explaining Dr. Rangayyan's opinion that Okada, in combination with any one of Richard, Lee, Sabri, Rangayyan, Chen or Narendra, render Claims 1-3 obvious). Polaroid's failure to address any of these issues is a further -- independent -- reason that its Motion for Summary Judgment of Non-Obviousness should be denied. *See Omegaflex, Inc.*, 243 Fed. Appx. at 596-97; *Miller Prods.*, 2004 WL 253473, at *5.

Polaroid also fails to address Dr. Rangayyan's opinion that various combinations of other prior art references render Claims 1-3 obvious. *See* Rangayyan Supplemental Report ¶¶ 108-139 (explaining Dr. Rangayyan's opinion that the Wang reference in combination with any of the Lee, Gonzalez, Sabri, Rangayyan, Chen or Narendra references renders Claims 1-3 obvious, ¶¶ 150-155 (stating that Iida[4] either anticipates, or in combination with any one of Gonzalez, the Gonzalez Algorithm or Richard, Lee, Sabri, Rangayyan, Chen, Wang or Narendra renders Claims 1-3 obvious).

The Court need look no further than Polaroid's failure to even address this evidence of obviousness in order to deny its Motion For Summary Judgment of Non-Obviousness. *See Med. Instrum. and Diagnostics Corp.*, 344 F.3d at 1220-22; *Miller Prods.*, 2004 WL 253473, at *5.

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[4] In his Supplemental Report Dr. Rangayyan discuses the implications of another reference ignored by Polaroid's Motion, U.S. Patent No. 4,394,688 [1983] to Iida *et al.* ("Iida"). Iida discloses, among other things, the use of a power-law gamma function to enhance contrast. *See* Rangayyan Supplemental Report (Rangayyan Decl. Ex. C), ¶¶ 144-153.

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2.   **The Record Evidences Material Issues of Fact With Respect to Whether the Combinations of the Identified Prior Art Addressed in Polaroid's Motion Render Claims 1-3 of the '381 Patent Obvious**

Polaroid's arguments regarding the combinations of prior art references addressed in its Motion ignore the directly contrary interpretation of the references provided by Dr. Rangayyan in his reports. Polaroid also ignores Dr. Rangayyan's contradictory opinions with respect to the motivation of a person skilled in the art to combine the various references. Instead, Polaroid has simply stated the opinions of its own expert on these issues as if they were unchallenged. The simple fact is that HP has proffered substantial, and directly contradictory evidence, in the form of the references themselves and Dr. Rangayyan's opinions, with respect to every single assertion made by Polaroid. At a minimum, such contradictions in the parties' evidence create material issues of fact precluding summary judgment. *Anderson*, 477 U.S. at 255; *Omegaflex, Inc.*, 243 Fed. Appx. at 596-97; *Med. Instrum. and Diagnostics Corp.*, 344 F.3d at 1220-22; *Amesbury Group, Inc.*, 2006 WL 3196747, at *6; *IXYS*, 321 F. Supp.2d at 1148.

a.   **Gonzalez in Combination with the Gonzalez Algorithm**

Dr. Rangayyan describes in detail why a person of ordinary skill in the art would combine the Gonzalez Algorithm with other teachings in the same text, and how the combination of Gonzalez and the Gonzalez Algorithm disclose each element of Claims 1-3. *See* Rangayyan Report (Rangayyan Decl., Ex. A), ¶¶ 204-210 (Gonzalez teaches the elements of the preamble); ¶¶ 217-223 (Gonzalez teaches the first means-plus function limitation of Claim 1 -- means for averaging); ¶ 230 (Obvious to combine Gonzalez disclosure of means for averaging with Gonzalez Algorithm); ¶¶ 231- 235 (Gonzalez Algorithm teaches second means-plus-function limitation -- means for selecting and transforming); ¶ 238 (explaining that claims 1-3 of the '381 patent would have been obvious in view of a combination of the Gonzalez Algorithm and Gonzalez); ¶¶ 244-246 (Gonzalez teaches the additional limitation imposed by Claim 2); ¶ 251

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(Claim 2 is obvious in light of Gonzalez combined with Gonzalez Algorithm); ¶¶ 252-254 (Gonzalez teaches the additional limitation contained in Claim 3); ¶ 258 (Claim 3 obvious in light of Gonzalez combined with Gonzalez Algorithm).

As recited virtually verbatim in Polaroid's motion, Dr. Agouris opines that: one skilled in the art would not have considered the Gonzalez Algorithm; there was no motivation to combine the Gonzalez Algorithm with the remainder of the very same textbook (the Gonzalez Reference); and the combination of Gonzalez and the Gonzalez Algorithm still would not disclose all the elements of Claims 1-3. *See* Polaroid's Motion, p. 33-34. Dr. Rangayyan disagrees with each point.

Polaroid argues that a person skilled in the art would not look to the Gonzalez Algorithm because it is used to print images on a printer. Dr. Rangayyan disagrees. Although it is used to print images, the Gonzalez Algorithm discloses a software-based algorithm for contrast enhancement. *See* Rangayyan Report ¶ 38. The Gonzalez Algorithm is part of the Gonzalez text, which is one of the few premier textbooks on image processing used by practitioners of the art during the relevant period. *See* Rangayyan Report, ¶ 36; Rangayyan Decl. ¶ 7. A person of ordinary skill in the art would have been directed to understand the Gonzalez Algorithm by the Gonzalez text itself because the text instructs readers to utilize the algorithm to output images. *See id.* A person of ordinary skill in the art would have understood the Gonzalez Algorithm to disclose a contrast enhancement scheme. *See id.* Thus, Dr. Rangayyan has explained that, for at least these reasons, the Gonzalez Algorithm would be considered by a person of ordinary skill in the art. *See id.*

Polaroid argues that a combination of Gonzalez with the Gonzalez Algorithm would not disclose the elements of claims 1-3. As discussed above, Dr. Rangayyan's report explains how

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Gonzalez and the Gonzalez Algorithm disclose each element of claims 1-3. *See* Rangayyan Report, ¶¶ 204-210; ¶ 230; ¶¶ 231- 235; ¶ 238; ¶¶ 244-246; ¶ 251; ¶¶ 252-254; ¶ 258.

Polaroid argues that Gonzalez only discloses the use of a histogram-based contrast enhancement scheme. *See* Polaroid's Motion, pp. 33-34. However, Dr. Rangayyan does not rely on the histogram-related disclosures of Gonzalez. Rather, Dr. Rangayyan's opinion is based on other sections of the Gonzalez text -- which describe the elements of: i) utilizing the local average of pixel values to determine the amount of transformation to perform on an input pixel; ii) using a ratio of a calculated intermediate value over a value within the dynamic range in a contrast enhancement algorithm; and iii) using power law functions in transformation. *See* Rangayyan Report, ¶¶ 210, 223, 230, 246, 254 (citing Gonzalez at p. 160).

Resolution of the conflict between the parties' respective experts hinges on determinations of: (1) the scope of the disclosure of Gonzalez Reference and the Gonzalez Algorithm; and (2) an assessment of whether it would have been obvious to one of ordinary skill in the art to combine the teachings in the same reference. Both of these issues are quintessential issues of fact as to which there exist directly contrary opinions from the parties' technical experts, which make summary judgment inappropriate. *See Med. Instrum. and Diagnostics Corp.*, 344 F.3d at 1221 ("[t]he question of what a reference teaches and whether it describes every element of a claim is a question for the finder of fact" and holding that the district court "improperly usurped the role of the jury" in disregarding the defendant's expert's testimony about what a prior art reference would teach a person of ordinary skill in the art); *see also Omegaflex, Inc.*, 243 Fed. Appx. at 596-97; *In re Fulton*, 391 F.3d 1195, 1199-200 (Fed. Cir. 2004); *Amesbury Group, Inc.*, 2006 WL 3196747, at *6; *IXYS*, 321 F. Supp.2d at 1148.

b.   The Gonzalez Algorithm in Combination with Richard.

In his report, Dr. Rangayyan explained that Richard and the Gonzalez algorithm in combination teach each element of Claims 1-3 of the '381 patent. *See* Rangayyan Report, ¶¶ 204-208, 211 (Richard teaches the elements of the preamble); ¶¶ 217-222, 224 (Richard teaches the first means-plus function limitation of Claim 1 -- means for averaging); ¶ 230 (Obvious to combine Richard disclosure of means for averaging with Gonzalez Algorithm); ¶¶ 231- 235 (Gonzalez Algorithm teaches second means-plus-function limitation -- means for selecting and transforming); ¶¶ 237, 239 (explaining that claims 1-3 of '381 patent would have been obvious in view of a combination of the Gonzalez Algorithm and Richard); Appendix D (Richard teaches additional limitation imposed by Claim 2); ¶ 251 (Claim 2 is obvious in light of Richard and Gonzalez Algorithm); ¶¶ 252-253, 255 (Richard teaches additional limitation contained in Claim 3); ¶ 258 (Claim 3 obvious in light of Richard and the Gonzalez Algorithm).

Polaroid asserts that there was no motivation to combine Richard with the Gonzalez Algorithm because Richard's "primary purpose is to teach the use of an amplifier that is not affected by the noise in an image. *See* Polaroid's Motion, p. 34. Dr. Rangayyan disagrees.

The full title of the Richard patent is "Contrast Amplifier for Video Images." Richard patent (Scott Decl., Ex. D), p. 1. It discloses particular techniques and circuitry for performing contrast enhancement in an image. *See* Rangayyan Report ¶¶ 100-104. Richard discloses a means of contrast enhancement that is locally adaptive, that is, the amount of contrast enhancement applied to a particular pixel changes based on the brightness of pixels in an area around the pixel being enhanced. *See id.* ¶¶ 105-107. Thus, the "primary purpose" of the Richard reference is contrast enhancement of images, and it is exactly the type of reference a person of ordinary skill in the art would look to and learn from when developing a locally

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adaptive contrast enhancement scheme such as that disclosed in the '381 patent. *See* Rangayyan Decl.¶ 6.

Polaroid argues that a person of ordinary skill would not consider the Richards reference because it does not disclose an algorithm that increases contrast by making dark portions of an image brighter. *See* Polaroid's Motion at pp. 34-35. Dr. Rangayyan disagrees with that assertion. He explains that a person of ordinary skill in the art would appreciate that the different elements of the inventions disclosed in Richard could be taken and utilized in combination with elements from other references to develop contrast enhancement algorithms that, overall, achieved results different from that of the specific scheme disclosed in any one of the references. *See* Rangayyan Decl. ¶¶ 9-10. In essence, the prior references use mathematical expressions to achieve overall contrast enhancement. A person of ordinary skill in the art would understand the effect of particular mathematical expressions on the overall contrast enhancement method and would know to combine different expressions to achieve particular results -- such as those claimed in the '381 patent. *See id.*.

Polaroid contends that a person of ordinary skill in the art would not look to the Gonzalez Algorithm to develop a contrast enhancement algorithm because it is disclosed in the context of a program for printing images on a printer. *See* Polaroid Motion, p. 35. As described above in Section IV(B)(2)(a), Dr. Rangayyan disagrees.

Polaroid asserts that a person of ordinary skill would not have had a reasonable expectation of success in a combination of Richard and Gonzalez because they are allegedly "directed at two different processing techniques." *See* Polaroid Motion p. 35. Dr. Rangayyan disagrees. As described above, the Gonzalez Algorithm -- contained in one of the premiere texts on image processing -- discloses a contrast enhancement technique. *See* Rangayyan Report, ¶

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38. The Richard patent discloses a contrast enhancement amplifier. *See* Richard (Scott Decl., Ex. D), p. 1. Both are, therefore, directed to enhancement of contrast in images. As noted above, a person of ordinary skill in the art would understand the implications of particular mathematical expressions used in contrast enhancement algorithms and be able to predict the effect that use of those expressions, alone or in combination with other mathematical expressions, would have on a contrast enhancement algorithm. *See* Rangayyan Decl. ¶¶ 9, 10. Thus, a person of ordinary skill in the art, when examining the algorithms disclosed in the Richard patent and Gonzalez Algorithm would have had a reasonable expectation that the concepts and mathematical expressions of the two could be combined in a contrast enhancement scheme such as that disclosed in the '381 patent. *See id.* ¶ 11.

Polaroid's claim that the combination of these two references would not disclose the power-law function of claims 1-3 also is disputed by Dr. Rangayyan.[5]

As described above, Dr. Rangayyan has provided a detailed explanation of how the combination of disclosures in the Gonzalez Algorithm and Richard would make obvious the power-law function of claims 1-3. *Compare* Polaroid Motion, pp. 34-35; *with* Rangayyan Report, ¶¶ 204-208, 211; ¶¶ 217-222, 224; ¶ 230; ¶¶ 231- 235; ¶¶ 237, 239; Appendix D; ¶ 251; ¶¶ 252-253, 255; ¶ 258.

There are material issues of fact raised by the conflicting expert opinions both as to what these two references disclose to a person of ordinary skill and as to the motivation such a person would have to combine these references. Summary judgment, should, therefore, be denied. *See Omegaflex, Inc.,* 243 Fed. Appx. at 596-97; *DyStar Textilfarben GmbH & Co. Deutscheland KG*

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[5] Generally, a power-law function is one in which at least a portion of the function is raised to a power, or in which the root of a value, such as a square-root, is utilized in the function.

v. C.H. Patrick Co., 464 F.3d 1356, 1360 (Fed. Cir. 2006); *Med. Instrum. and Diagnostics Corp.*, 344 F.3d at 1220-22.

c.   The Gonzalez Algorithm in Combination with Lee.

In his report, Dr. Rangayyan explains that Lee and the Gonzalez Algorithm in combination teach or suggest each and every element of claims 1-3. *See* Rangayyan Report, ¶¶ 204-208, 212 (Lee teaches the elements of the preamble); ¶¶ 217-222, 225 (Lee teaches the first means-plus function limitation of Claim 1 -- means for averaging); ¶ 230 (Obvious to combine Lee disclosure of means for averaging with Gonzalez Algorithm); ¶¶ 231- 235 (Gonzalez Algorithm teaches second means-plus-function limitation -- means for selecting and transforming); ¶237 (explaining that claims 1-3 of the '381 patent would have been obvious in view of a combination of the Gonzalez Algorithm and Lee); ¶¶ 249 (Lee teaches additional limitation imposed by Claim 2); ¶ 251 (Claim 2 is obvious in light of Lee and Gonzalez Algorithm); ¶¶ 252-253, 256 (Lee teaches additional limitation contained in Claim 3); ¶ 258 (Claim 3 obvious in light of Lee and the Gonzalez Algorithm).

Polaroid argues that a person of ordinary skill in the art would not have reason to combine the teachings of the Gonzalez Algorithm with Lee (*see* Polaroid Motion, p. 35), but Polaroid does not explain why a person of ordinary skill would not be motivated to combine the two references. *See id.* Rather, it takes issue with Dr. Rangayyan's explanation of the disclosures contained in Lee, arguing that Lee does not disclose a "power law" function and that it would be non-trivial to replace the linear functions[6] allegedly disclosed in Lee with power-law function such as that allegedly used in claims 1-3 of the '381 patent. *See id.*

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[6] Generally, "linear functions" are mathematical relationships that do not employ exponential or logarithmic components.

Dr. Rangayyan disagrees. He explains that a person of ordinary skill in the art would appreciate the effect of different mathematical operations and expressions on a contrast enhancement algorithm -- such as the use of exponential expressions (or "power-law" functions). A person of ordinary skill would be adept at modifying algebraic functions and predicting the effects of such modifications on the resulting contrast enhancement algorithm. *See* Rangayyan Decl. ¶ 12. He explains that, as a result, it would be both trivial and expected that a skilled artisan would modify linear contrast enhancement functions to use exponential (or "power-law") expressions if such modification could reasonably be expected to achieve a desired result. *See id.*

Dr. Rangayyan also disagrees with Polaroid's assertions regarding the disclosures contained in Lee; as described in the beginning of this section, he has provided a detailed analysis as to how the combination of Lee and the Gonzalez Algorithm disclose each element of Claims 1-3.

Moreover, on the specific issue as to whether Lee discloses non-linear contrast enhancement functions, the experts also apparently disagree. Dr. Rangayyan explains that the Lee references itself discloses non-linear functions and would demonstrate to a person of ordinary skill in the art that transfer functions are easily modified to become either linear or non-linear. *See* Rangayyan Report, ¶ 61 (algorithm in Lee utilizes square root of the distance between the value of the pixel being processed and the average of the values of the surrounding pixels); Rangayyan Decl. ¶ 13.

Polaroid's remaining argument relating to this combination are simply restatements of its contested position with regard to the scope of disclosure of the Gonzalez Algorithm, which have been previously addressed above in Section IV(B)(2)(a). As discussed above, these arguments --

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like the others made by Polaroid -- serve only to highlight the conflicting expert testimony on these issues.

Dr. Rangayyan disputes each of the assertions relied upon by Polaroid with respect to the combination of Lee and the Gonzalez Algorithm. Consequently, there exist material issues of fact with respect to the scope of the disclosures in both references and the motivation of one skilled in the art to combine them. Summary judgment should be denied. *See Omegaflex, Inc.*, 243 Fed. Appx. at 596-97; *In re Fulton*, 391 F.3d at 1199-200; *Med. Instrum. and Diagnostics Corp.*, 344 F.3d at 1220-22; *Amesbury Group, Inc.*, 2006 WL 3196747, at *6; *IXYS*, 321 F. Supp.2d at 1148.

d.   The Gonzalez Algorithm in Combination with Rangayyan.

In his report, Dr. Rangayyan explains how Rangayyan and the Gonzalez Algorithm in combination teach or suggest each and every element of claims 1 and 2 of the '381 patent. *See* Rangayyan Report, ¶¶ 204-208, 214 (Rangayyan teaches the elements of the preamble); ¶¶ 217-222, 227 (Rangayyan teaches the first means-plus function limitation of Claim 1 -- means for averaging); ¶ 230 (Obvious to combine Rangayyan disclosure of means for averaging with Gonzalez Algorithm); ¶¶ 231- 235 (Gonzalez Algorithm teaches second means-plus-function limitation -- means for selecting and transforming); ¶ 237, 242 (explaining why claims 1 and 2 of '381 patent would have been obvious in view of a combination of the Gonzalez Algorithm and Rangayyan); ¶¶ 247-248 (Rangayyan teaches additional limitation imposed by Claim 2); ¶ 251 (Claim 2 is obvious in light of Rangayyan and Gonzalez Algorithm).

Polaroid contends that Rangayyan teaches away from the '381 patent because, Polaroid alleges, the "goal" of the Rangayyan reference is to make dark pixels darker and light pixels lighter. *See* Polaroid's Motion, p. 37. Dr. Rangayyan, the author of the reference, disagrees.

See Rangayyan Report ¶¶ 204-208, 214, 217-222, 227, 230, 231- 235, 237, 242, 247-248, and

251. He explains that, in relevant part, the "goal" of his article, like the goal of the '381 patent, is

adaptive contrast enhancement generally.[7] That is, a contrast enhancement scheme in which

pixels are modified differently across an image based on the brightness of the surrounding pixels

adjacent to the pixel being processed. *See* Rangayyan Decl. ¶ 14. Because the Rangayyan

reference is directed to digital contrast enhancement algorithms, and specifically to the locally-

adaptive variety claimed in the '381 patent it does not teach away from the asserted claims. *See*

id. ¶ 15.

Polaroid argues that the combination of Rangayyan and the Gonzalez Algorithm would

not suggest the use of a power-law function. However, as Dr. Rangayyan has made clear, his

article and the Gonzalez Algorithm both disclose the use of power law function. *See* Rangayyan

Report ¶ 232-236; Rangayyan Decl. ¶ 16. Thus Polaroid's argument that the combination would

not suggest the use of such functions to one of ordinary skill in the art is baseless.

Polaroid's argument that one of ordinary skill would not have combined these two

references because they are addressed to different problems simply identifies one more fact

issue. Dr. Rangayyan has explained that in his expert opinion a person of ordinary skill in the art

would examine the teachings of Rangayyan and Gonzalez Algorithm -- both directed to image

processing and contrast enhancement regardless of the specific applications to which they were

addressed because both are within the same field of image processing techniques and

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[7] Whatever the "goal" of Rangayyan may be, each and every disclosure in the reference
constitutes prior art. *See Merck & Co. v. Biocraft Labs.*, 874 F.2d 804, 807-09 (Fed. Cir. 2005);
In re Heck, 699 F.2d 1331, 1332-33 (Fed. Cir. 1983); *see also Upsher-Smith Labs. v. Pamlab,
LLC*, 412 F.3d 1319, 1323 (Fed. Cir. 2005); *Celeritas Techs. Ltd. v. Rockwell Int'l Corp.*, 150
F.3d 1354, 1361 (Fed. Cir. 1998). Polaroid's attempt to limit the disclosure of Rangayyan to
only that which Polaroid asserts is the reference's "goal" is, therefore, also incorrect as a matter
of law.

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manipulation. *See* Rangayyan Report ¶¶ 38, 82. Resolving the conflict between HP and

Polaroid's conflicting evidence on this issue is a question of fact for the jury. *See Omegaflex,*

Inc., 243 Fed. Appx. at 596-97; *Med. Instrum. and Diagnostics Corp.*, 344 F.3d at 1220-22; *Goss*

Int'l Americas, Inc. v. MAN Roland, Inc., 2008 WL 879762, at *1-2 (D.N.H. 2008).

    e. **The Gonzalez Algorithm in Combination with Chen.**

  In his report, Dr. Rangayyan explains how Chen and the Gonzalez algorithm in

combination teach or suggest each and every element of Claim 1 of the '381 patent. *See*

Rangayyan Report, ¶¶ 204-208, 215 (Chen teaches the elements of the preamble); ¶¶ 217-222,

228 (Chen teaches the first means-plus function limitation of Claim 1 -- means for averaging);

¶ 230 (Obvious to combine Chen disclosure of means for averaging with Gonzales Algorithm);

¶¶ 231- 235 (Gonzales Algorithm teaches second means-plus-function limitation -- means for

selecting and transforming); ¶ 237, 242 (explaining why claims 1 and 2 of '381 patent would

have been obvious in view of a combination of the Gonzalez Algorithm and Chen).

  Polaroid argues that there would be no motivation to combine the Gonzalez Reference

and Chen because they are directed at "two different fields" and because Chen teaches only

"fractal modeling." Motion for Summary Judgment of Non-Obviousness, p. 38. Dr. Rangayyan

disagrees.

  As explained above in Section IV(B)(2)(a), the Gonzalez Algorithm, as part of the

Gonzalez text, is directed to the field of image processing. It teaches a contrast enhancement

algorithm. *See* Rangayyan Report, ¶ 38.

  Chen teaches both contrast enhancement and a method for zooming into digital images.

See, e.g., Chen. Col. 3 *ll.* 20-38, (zooming), *ll.* 39-56, (contrast enhancement). It is clear from

the face of the reference that the fractal modeling portion of Chen is directed to only the zooming

aspects of its disclosure. *See, e.g.,* Chen col. 8, *l.* 20-Col. 1 *l.* 21); s*ee also* Rangayyan Decl.

¶ 17. In paragraphs 110 to 118 of his Expert Report, Dr. Rangayyan explains how the Chen

reference is directed to state of the art in digital image processing for: i) continuously enhancing

pixel values; and ii) selecting a contrast enhancement transfer function uniquely defined for each

pixel being processed and using the mean of values of neighboring pixels.

Both the Gonzalez Algorithm and Chen are, therefore, directed at and disclose contrast

enhancement algorithms. They are not directed at "two different fields" as Polaroid contends. A

person of ordinary skill in the art would have examined these references and understood that

both could contribute components to a contrast enhancement algorithm like that disclosed in the

'381 patent. *See* Rangayyan Decl. ¶¶ 9, 10, 18.

Polaroid's expert's disagreements with Dr. Rangayyan's opinions with regard to the

applicability of Chen and the Gonzalez Algorithm may create a material issue of fact as to

whether one of ordinary skill would have motivation to combine the two, but they are not

grounds for summary judgment. *See In re Fulton*, 391 F.3d at 1199-200; *Med. Instrum. and*

Diagnostics Corp., 344 F.3d at 1220-22; *Goss Int'l Americas, Inc.*, 2008 WL 879762, at *1-2;

Amesbury Group, Inc., 2006 WL 3196747, at *6.

> **f.   The Gonzalez Algorithm in Combination with Narendra.**

In his report, Dr. Rangayyan explains how Narendra and the Gonzalez Algorithm in

combination teach or suggest each and every element of Claims 1-3 of the '381 patent. *See*

Rangayyan Report, ¶¶ 204-208, 216 (Narendra teaches the elements of the preamble); ¶¶ 217-

222, 229 (Narendra teaches the first means-plus function limitation of Claim 1 -- means for

averaging); ¶ 230 (Obvious to combine Narendra disclosure of means for averaging with

Gonzalez Algorithm); ¶¶ 231- 235 (Gonzalez Algorithm teaches second means-plus-function

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limitation -- means for selecting and transforming); ¶ 237, 243 (explaining that claims 1-3 of '381 would have been obvious in view of a combination of the Gonzalez Algorithm Narendra would have been obvious); ¶¶ 250 (Narendra teaches additional limitation imposed by Claim 2); ¶ 251 (Claim 2 is obvious in light of Narendra and Gonzalez Algorithm); ¶¶ 252-253, 257 (Narendra teaches additional limitation contained in Claim 3); ¶ 258 (Claim 3 obvious in light of Narendra and the Gonzalez Algorithm).

Without explanation, Polaroid asserts that a person of ordinary skill in the art would not have reason to combine these references because the Narendra reference teaches what is known as a "recursive filter" to accomplish real-time adaptive contrast enhancement and because the Gonzalez Algorithm does not teach contrast enhancement.[8] *See* Polaroid Motion, p. 39.

However, Dr. Rangayyan explains that the Gonzalez Algorithm teaches contrast enhancement. *See* Rangayyan Report, ¶¶ 38. He states further that the fact that Narendra includes teachings with respect to a recursive implementation of its algorithms would not have prevented a person of ordinary skill in the art from appreciating the applicability of Narendra's teachings to adaptive contrast enhancement algorithms generally. *See* Rangayyan Decl., ¶ 19. Polaroid acknowledges that Narendra teaches methods of "real-time adaptive contrast enhancement." Polaroid Motion, p. 39. Thus, as Dr. Rangayyan explains, Narendra and the Gonzalez Algorithm are directed at image processing generally and specifically at contrast enhancement. *See* Rangayyan Report, ¶¶ 38, 64-67; Rangayyan Decl., ¶ 20. Further, as discussed above, a person of ordinary skill in the art would understand that components of two references, such as the Gonzalez Algorithm and Narendra, could be combined to develop

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[8] In the context of the Narendra reference, a "recursive filter" is a mathematical algorithm which uses output values for pixels that have already been processed to compute the output value for

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contrast enhancement algorithms desired properties. *See* Rangayyan Decl., ¶ 21. Thus, a person

of ordinary skill in the art would have had reason to examine and combine the teachings of these

two references. *See* Rangayyan Report, ¶¶ 243, 250, 257.

Moreover, Polaroid bases its argument on a false premise regarding the disclosure of

Narendra. Narendra discloses non-recursive contrast enhancement schemes. *See* Narendra, p. 2

(under the heading "Nonrecursive Implementation"). Polaroid's expert Dr. Agouris

acknowledged this fact in her deposition:

> Q:
>
> A:
>
> Q:
>
> A:

Deposition of Dr. Peggy Agouris (Scott Decl., Ex. B), p. 231, beginning at *l* 15.

Once again, Polaroid has done no more than create further fact issues regarding the scope

of the disclosure in Narendra and the motivation a person of ordinary skill to combine the two

references. As repeatedly stated above, these are issues of fact that cannot be resolved upon

summary judgment. *See Omegaflex, Inc.*, 243 Fed. Appx. at 596-97; *Med. Instrum. and*

Diagnostics Corp., 344 F.3d at 1220-22; *Goss Int'l Americas, Inc.*, 2008 WL 879762, at *1-2;

Amesbury Group, Inc., 2006 WL 3196747, at *6.

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the current pixel; in addition, the input pixel values are also used. A nonrecursive filter uses only
the input pixel values to compute the output pixel values.

3.   Polaroid's Allegations Regarding Secondary Considerations Simply Raise Additional Issues Of Fact That Preclude Summary Judgment.

Polaroid argues that it has demonstrated long-felt demand and failure to solve by others. *See* Polaroid's Motion, pp. 30-31. As discussed above, and throughout Dr. Rangayyan's reports, HP has provided evidence that others, for example those inventors and authors of the various prior art references alleged to anticipate claims 1-3, had developed the same solution as that reflected in the asserted claims. Resolution of all the fact issues related to HP's allegations will, therefore, be necessary for Polaroid to make out its argument regarding this factor.

Polaroid also argues that the factors of professional approval and commercial success weigh in favor of a finding of non-obviousness. In both instances, Polaroid relies only on the alleged professional approval and commercial success of HP's allegedly infringing products. *See* Polaroid Motion, pp. 31-32. In order for any of that evidence regarding HP's products to even be relevant, they first must be shown to infringe. All of the underlying fact determinations relating to the alleged infringement (and the nexus between the alleged invention and the commercial success) would have to be resolved before such factors could be taken into account.[9]

Thus, it would be inappropriate for the Court to even consider the secondary factors, one way or another, because each requires the determination of material issues of fact.

Conclusion

For the reasons stated above, Polaroid's Motion for Summary Judgment of Non-Obviousness should be denied because it fails to address substantial evidence of obviousness set forth by HP and because, to the extent that it addresses any of HP's evidence, it does no more than identify material issues of fact that cannot be resolved on summary judgment.

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[9] Likewise, HP's argument relating to HP's patent, even *if* legally relevant, would require resolution of a multitude of factual issues as to the similarly, or lack thereof, of the two patents.

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Dated: June 5, 2008   **FISH & RICHARDSON P.C.**

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CERTIFICATE OF SERVICE

I hereby certify that on June 5, 2008, I electronically filed with the Clerk of Court the

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